REMARKS

Applicant respectfully requests reconsideration of the instant application on the basis of newly amended Claims 1 and 8. Claims 1 and 8 are the main claims and the remaining claims are directly or indirectly dependent upon those.

The Examiner has rejected the claims as being unpatentable over U.S. Patent No. 5,329,470 by Sample (*Sample*). It is believed that Claims 1 to 12 are clearly distinguishable over this reference for the reasons that will be set forth.

Support for the amendment of Claims 1 and 8 is found in Claim 3 and the specification, page 6, lines 18 though 26 and others.

35 U.S.C. § 112 (first paragraph) Grounds for Rejection

The Examiner rejected former Claim 3 under 35 U.S.C. § 112, first paragraph, for failing to have an enabling disclosure. Applicant respectfully draws the attention of the Examiner to page 6, lines 18-26 of the present specification that teaches how the location is determined by the configuration controller in such a way as to enable one skilled in the art to which the present invention pertains to make or use the invention. Accordingly, Applicant respectfully submits that this rejection should be withdrawn.

35 U.S.C. § 112 (second paragraph) Grounds for Rejection

The Examiner rejected Claims 1-10 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Presently, Claims 1 and 8 are amended to changing the word replicate to emulate.

Additionally, the Examiner stated that the term "configurable electronic circuitry" is not clear. Applicant wishes to draw the attention of the Examiner to the first appearance of that term in Claim 1, for example. It should be noted that the quoted phrase is just the first part of a "means plus function" definition of the term and should be given its fullest or broadest context in accordance with 35 U.S.C. § 112, sixth paragraph. Also, the "configurable electronic circuitry means for" element is something more than just "firmware;" it is structure, such as a field programmable array (FPGA) or the like. In addition, new Claims 11 and 12 are added to recite that the configurable electronic circuit includes a field programmable gate array (FPGA). Accordingly, Applicant respectfully submits that these rejections should be withdrawn.

35 U.S.C. § 102(b) Grounds for Rejection

The Examiner has principally rejected the claims as being anticipated by *Sample*. It is believed that Claims 1 to 12 are clearly distinguishable over this reference for the reasons that will be set forth.

The *Sample* patent shows a reconfigurable emulation system. The drawings and specification of *Sample* show that this system is a system that is generally for bench-top test use. The present invention is for development and emulation of existing hardware, and is specifically designed for use in embedded real-time systems, and requires no external hardware for it to function. Both *Sample* and the present invention use FPGAs in the design, however, the configuration controller of the present invention is able to determine the location of the configurable electronic circuit in the electronic master system and configure the configurable electronic circuit to replicate a selected function and operational characteristics of the known electronic system sub-component.

Independent Claim 1 recites the following elements, the most pertinent to this discussion being presented in bold type for the convenience of the Examiner:

> 1. An electronic component electronically connected with an external electronic master system comprising:
>
> configurable electronic circuitry means for emulating an output signal from a respective known electronic system sub-component of a known electronic master system, the output signal corresponding to a function of the electronic system sub-component;
>
> an input/output interface for electronically mating the configurable electronic circuit to the electronic master system; and
>
> a configuration controller element electronically connectable with the configurable electronic circuit, the configuration controller **determines the location of the configurable electronic circuit in the electronic master system and configures the configurable electronic circuit to emulate a selected function and operational characteristics of the known electronic system sub-component**;
>
> wherein the configurable electronic circuit has an output adaptable as an input to the electronic master system to emulate and replace functions of the known electronic system sub-component acting in the electronic master system.

Since such determining of the location of the configurable electronic circuit in the electronic master system of the Applicant's invention as claimed are not disclosed or suggested by *Sample*, Applicant suggests that the claimed structure of the present invention is neither identical to nor disclosed by the *Sample* device. Therefore, *Sample* cannot anticipate the present claimed invention.

Even if the *Sample* patent incidentally showed a similar arrangement of parts, if that arrangement is neither claimed nor designed to perform the function of the present invention, the *Sample* patent can not act as an anticipation.

35 U.S.C. § 103 Grounds for Rejection

One should also assume that the Examiner rejected Claims 1-10 under 35 U.S.C. § 103(a) as being unpatentable over the *Sample* Patent. Applicant respectfully traverses this rejection for the reasons discussed below.

Applicant's invention is directed toward solving the disadvantage that prior circuit card emulation systems required user input. Prior to the present invention the user of the *Sample* device had to enter information describing the electronic circuit or system desired to emulate at a data entry workstation that was part of the emulation apparatus. *See Sample*, col. 3, lines 21-31.

By the Applicant's structure one is able to achieve the advantages which have hitherto not been achievable through any adaptation of the prior art. It is therefore believed to be clear that the particular structure of Applicant is extremely important and is not a mere matter of design. It should also be noted that the *Sample* reference has been available since July 12, 1994. Between that time and the present, no one except Applicant has constructed an electronic circuit component that determines its location in the electronic master system and configures a configurable electronic circuit to emulate a selected function and operational characteristics of the known electronic system sub-component without the disadvantages discussed above and which are clearly set forth on the first few pages of Applicant's specification. It is certainly believed to be pertinent that no-one has achieved or anticipated Applicant's structure despite the availability of the reference.

It is improper to use hindsight having read the Applicant's disclosure to "pick and choose" among isolated prior art references to disparage the claimed invention. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Even where an invention is, as a whole, fully

disclosed by a combination of prior art elements, such elements cannot be combined to defeat a patent as obvious unless the art teaches or suggests the desirability of making the combination. ASC Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 U.S.P.Q. 929 (Fed. Cir. 1984). Thus, the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, U.S.P.Q.2d 1780 (Fed. Cir. 1992). Finally, it is the invention as a whole that is important. Focusing on the obviousness of substitutions and differences, instead of on the invention as a whole, is a legally improper way to simplify the often difficult determination of obviousness. Gillette Co. v. S. C Johnson & Son, Inc., 919 F. 2d 720, 16 U.S.P.Q. 1923 (Fed. Cir. 1990).

Sample fails to teach or suggest the claim elements high-lighted above.

Dependent Claims 2-7 and 9-12 that depend from independent Claims 1 or 8 are also not made obvious by *Sample* because they include the limitations of Claim 1 or 8 and add additional elements that further distinguish the art. Therefore, Applicant respectfully requests that Claims 1-12 be allowed.

New Claims

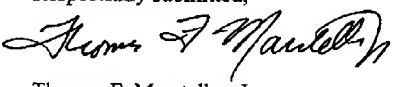
New Claims 11-12 are added to more fully claim the present invention. Claim 11 depends from Claim 1, and Claim 12 depends from the method Claim 8. Accordingly, Applicant respectfully submits that Claims 11-12 are patentable because they include all the limitations of Claims 1 or 8 and add additional elements.

Conclusion

Applicant has now made an earnest attempt to place this case in condition for allowance. In light of the amendments and remarks set forth above, Applicant respectfully requests reconsideration and allowance of Claims 1-12.

If there are matters which can be discussed by telephone to further the prosecution of this Application, Applicant invites the Examiner to call the attorney at the number listed below at the Examiner's convenience.

Respectfully submitted,



Thomas F. Marsteller, Jr.
Registration No. 29,672

Marsteller & Associates, P.C.
PO Box 803302
Dallas, TX 75380-3302
(972) 233-0939
(972) 386-3907 (Fax)

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